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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/596,867	06/19/2000	Kevin J. McGrath	5500-55600	5639

7590 06/18/2003

Lawrence J Merkel
Conley Rose & Tayon PC
P O Box 398
Austin, TX 78767-0398

EXAMINER

KIM, KENNETH S

ART UNIT	PAPER NUMBER
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2181

DATE MAILED: 06/18/2003

4

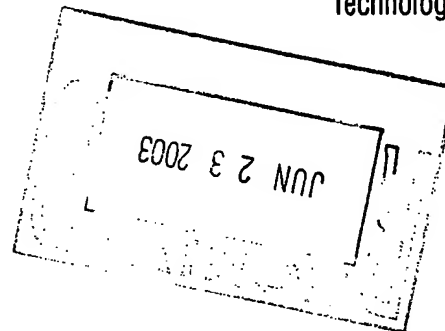
Attorney: _____
Transfer: _____
Action: 3 month extension
Due: 9/18/03
Docketed: 6/23

Please find below and/or attached an Office communication concerning this application or proceeding.

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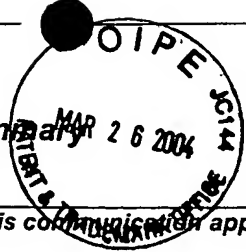
MAR 30 2004

Technology Center 2100



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Office Action Summary



Application No.

09/596,867

Examiner

Kenneth S KIM

Applicant(s)

MCGRATH ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

KENNETH S. KIM
PRIMARY EXAMINER

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). MAR 30 2004
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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1. Claims 1- 19 are presented for examination.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 14, it is not clear what are the choices of selection and on what the selection is based.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4, 7, 13, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al, U.S. Patent No. 5,907,694.

Suzuki et al teaches the invention as claimed in claims 1 and 2 including a processor comprising :

(a) a register (col. 2, line 12),

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(b) an execution core coupled to said register, wherein said execution core is configured to execute an instruction to produce a result, said instruction having said register as a destination, and wherein said execution core is configured to selectively sign extend said result for update in said register responsive to an operand size corresponding to said instruction (col. 2, lines 8-12), wherein said result comprises a number of bits specified by said operand size.

The sign extension of 8-bit or 16-bit result to store in a 32-bit register can be similarly applied to sign extension of 8-bit, 16-bit, 32-bit result to store in a 64-bit register as in claims 3, 4, and 7.

The method claims 13 and 14 are equivalently rejected based on the same reason.

6. Claims 1-4, 7, 8, 12, 13, 14, 17, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Balmer, U.S. Patent No. 5,758,195.

Balmer teaches the invention as claimed in claims 1 and 2 including a processor comprising :

(a) a register (col. 52, line 11),

(b) an execution core coupled to said register, wherein said execution core is configured to execute an instruction to produce a result, said instruction having said register as a destination, and wherein said execution core is configured to selectively sign extend said result for update in said register responsive to an operand size corresponding to said instruction (col. 52, lines 9-18), wherein said result comprises a number of bits specified by said operand size, and

further teaches as in claims 8 and 12,

(c) wherein said execution core is coupled to receive an operating mode of said processor and is configured to selective sign extend said result further responsive to said operating mode (col.

208, line 8) – claim 8,

(d) wherein said execution core is configured to preserve a value in at least a portion of a remainder of said register if not sign extending said result (remaining bits are not changed when the smaller size result is not sign extended) – claim 12.

The sign extension of 8-bit or 16-bit result to store in a 32-bit register can be similarly applied to sign extension of 8-bit, 16-bit, 32-bit result to store in a 64-bit register as in claims 3, 4, and 7.

The method claims 13, 14, 17, and 19 are equivalently rejected based on the same reason.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kilian et al taught a backward compatible computer architecture with sign extended word size.

Watanabe et al taught a processor executing instructions of various formats involving selective sign extension of operand data.

Jones, Jr. et al taught An ALU with sign bit extend.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth S KIM whose telephone number is (703) 305-9693. The examiner can normally be reached on M-F (8:30-17:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on (703) 305-4815. The fax phone numbers for the

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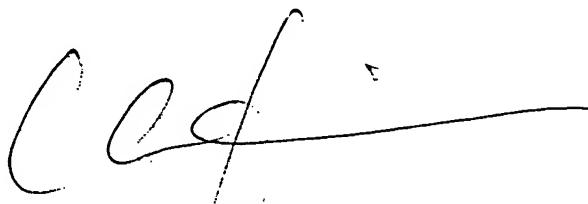
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organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

June 13, 2003



KENNETH S. KIM
PRIMARY EXAMINER

i Patents and Publications
 Applicant's Information
 Disclosure Statement
 (several sheets if necessary)

APPLICANT: McGrath et al.

SEP 22 GROUP: Unknown

FILING DATE: June 19, 2000 TC 2700 MAIL ROOM

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

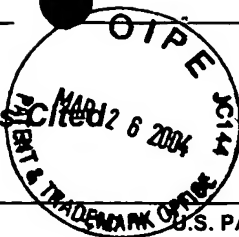
Exhibit (including Author, Title, Date, Pertinent Pages, Etc.)		
1C8K	A1	<u>Intel Architecture Software Developer's Manual, Volume 1: Basic Architecture</u> , Intel® Corporation, 1997, Chapter 3, pp. 5-7.
1C8K	A2	<u>PowerPC™ Microprocessor Developer's Guide</u> , © 1995 by Sams Publishing, pp. 42-44, 59-61.
1C8K	A3	U.S. Patent Application Serial No. 09/824,869

EXAMINER:

DATE CONSIDERED:

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.

Notice of References Cited



Application/Control No.

09/596,867

Applicant(s)/Patent Under
Reexamination
MCGRATH ET AL.

Examiner

Kenneth S KIM

Art Unit

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U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-5,091,853	02-1992	Watanabe et al.	712/212
	B	US-5,227,989	07-1993	Jones et al.	708/234
	C	US-5,420,992	05-1995	Killian et al.	703/27
	D	US-5,758,195	05-1998	Balmer, Keith	712/300
	E	US-5,907,694	05-1999	Suzuki et al.	712/210
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.